

IN THE SPECIFICATION:

Please amend paragraphs 22, 32 (in 2 places) and 43 (in 3 places).

[0022] The detection of a ground fault condition at a load connected to one of the face receptacles 38, 40 or to the feedthrough terminals 26 and 28, is implemented by a current sense transformer 42 and a grounded neutral detection transformer 44, the GFCI chip 10 which has a direct input into the microprocessor 14 via line 12, as well as other interconnecting components. The GFCI chip 10 is preferably a Type RV4145N integrated circuit manufactured by Fairchild Semiconductor, located in South Portland, Maine. The GFCI chip 10 and the microprocessor 14 are powered from the AC input terminals 22 and 24 by means of a full-wave bridge rectifier 29 and filter capacitor 31. A transient voltage suppressor 25 is connected across the input terminals 22 and 24 to provide protection from voltage surges due to lightning and other transient conditions. As the transients increase, the voltage suppressor 25 absorbs heat. To prevent the voltage suppressor 25 from overheating and damaging and degrading the enclosure parts, a thermal fuse 27 is preferably provided between the power source 65 and the diode bridge 29 and varistor 25. If the temperature reaches unacceptable levels, the fuse breaks the connection between the power source 65 and the combination of the bridge 29 and a varistor 25, creating an open circuit condition, leaving the GFCI 5 inoperable for safety purposes.

[0032] Conventional GFCI devices open the contacts when the test button is activated and closes the contacts only when a reset button is activated.

However, the GFCI 5 does not employ a reset button, rather the contacts 18 and 20 open and then re-close automatically, after which the GFCI 5 returns to normal operation., the microprocessor 14 flashes the green LED 80. If the automatic test fails (i.e., if the

GFCI chip 10 did not produce the required output, or if the contacts 20 did not open and re-close), the software is programmed to open the contacts 18 and 20 and flash the red LED ~~[[72]]~~ 73. An audible warning can also be added. If the user, depresses the manual test button two times, thus indicating a reset, the contacts will close. However, if a ground fault exists, the microprocessor opens contacts 18 and 20 despite the user depressing the manual test button twice.

[0043] In the embodiment of Figure 2, microprocessor 14 cannot ~~[[tell]]~~ distinguish between a manual test and an actual ground fault due to the location of the manual test button 108. Accordingly, the microprocessor 14 cannot be reset automatically after a manual test, as was possible in the embodiment of Figure 1. Nor can the manual test button be depressed twice ~~[[t]]~~ to initiate a reset as in Figure 1 because the second ~~presss~~ press of the manual test button is indistinguishable from an actual ground fault condition. Therefore, a reset button 106 is provided. The components and operation of the GFCI 100 of Figure 2 are similar in all other respects to the GFCI 5 of Figure 1.